200200236

No.

<u> THE UNITED STATES OF AMIERICA</u>

TO ALL TO WHOM THESE PRESENTS SHALL COME:

NTI International Seeds and Rutgers, The State Unibersity of New Iersey

THETE'S, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE TAWN.

NOW THEREFORE. THIS CERTIFICATE OF PEANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HERS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY CLARA FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC PLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR TING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE UIRPOSE, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT THE PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

FESCUE, CHEWINGS

'Longfellow II'

In Testimone Thereof, I have hereunto set my hand and caused the seal of the Flunt Inviety Protection Office to be affixed at the City of Washington, D.C. this twelfth day of December, in the year two thousand and five.

MAGODON Secretary of Agriculture

Attest:

Commissioner

Plant Variety Protection Office

8-1-1-1-1-1-1

U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE
(Instructions and information collection burden statement on reverse)

Application is required in order order. (7 U.S.C. 2421). Information

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

| - | | | | |
|-------------------|--|---|--|--|
| .g 105 | 1. NAME OF OWNER DL F Cebeco International Seeds Inc. of New Jers The State of New Jers On t | SIC MITTER DITY | ARY DESIGNATION OR ENTAL NAME FRC 2 | 3. VARIETY NAME Longfellow II |
| | 4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country) | | NE (include area code) | FOR OFFICIAL USE ONLY |
| | PO Box 229 | 541-3 | 69-2251 | PVPO NUMBER |
| | Halsey, OR 97348 USA | 6. FAX (incl.) 541-3 | ide area code) 29 - 4084 69 - 2251 | 200200236 |
| | | | 8(18/2005) | FILING DATE |
| | 7. IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION (corporation, partnership, association, etc.) 8. IF INCORPOR STATE OF INITIAL OF INITI | 1070 | INCORPORATION | august 23,200 à |
| D1 Jan 118) | 10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. (I) Stephen W. Johnson Gebeco International Seeds Inc. PO Box 229 Halsey, OR 97348 | First person listed will receive all papers ate University of New (B | Jersey T. 8/18 (2005) | FILING AND EXAMINATION FEES: \$ 2 705 DATE 8/23/2002 CERTIFICATION FEE: \$ 682.00 |
| | 14 TELEDHONE (today) and add | | | DATE 10/3/2005 |
| | 11. TELEPHONE (Include area code) 12. FAX (Include area code) 13. E-541-369-2251 541-369-2251 S | MAR TEVEJ@intlseed.co | : | P KIND (Common Name) |
| | | | | wings Fescue |
| | Footune rubre commutate | AMILY NAME (Bolanical) raminae | 17. IS THE | HE VARIETY A FIRST GENERATION RID? |
| 1 | 18. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse) a. X | 19. DOES THE OWNER SPECIF CERTIFIED SEED? See YES (If "yes", and and 21 below) 20. DOES THE OWNER SPECIF VARIETY BE LIMITED AS TO IF YES, WHICH CLASSES? 21. DOES THE OWNER SPECIF VARIETY BE LIMITED AS TO IF YES, SPECIFY THE NUMBER 1,2,3, etc. (If additional explanation is need.) | Section 83(a) of the Plant V. swer items 20 Y THAT SEED OF THIS NUMBER OF CLASSES? FOUNDATION THAT SEED OF THIS NUMBER OF GENERATIC FOUNDATION TOUNDATION | NO (II "no", go to item 22) YES NO REGISTERED CERTIFIED NO REGISTERED CERTIFIED CERTIFIED |
| 2 | 2. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U. S. OR OTHER COUNTRIES? | 23. IS THE VARIETY OR ANY CO PROPERTY RIGHT (PLANT E | MPONENT OF THE VARIE | TY PROTECTED BY INTELLECTUAL TENT)? |
| | YES INO IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES. (Please use space indicated on reverse.) | YES IF YES, PLEASE GIVE COUN REFERENCE NUMBER. (Pies | | NO ISSUANCE AND ASSIGNED reverse.) |
| 24 | 4. The owners declare that a viable sample of basic seed of the variety will be furnished with application for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained. The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variand is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act. Owner(s) is(are) informed that false representation herein can jeopardize protection and result in penal. | iety, and believe(s) that the variety is ne | | |
| Si | GNATURE OF OWNER W. Hunden | SIGNATURE OF OWNER | | |
| N/ | AME (Please print or type) Stephen W. Johnson | NAME (Please print or type) | | |
| | APACITY OR TITLE DITECTOR OF Research 7-22-32 470 (07-01) designed by the Plant Variety Protection Office with WordPerfect 9.0. Replaces STD-470 (07-01) designed by the Plant Variety Protection Office with WordPerfect 9.0. Replaces STD-470 (07-01) designed by the Plant Variety Protection Office with WordPerfect 9.0. Replaces STD-470 (07-01) designed by the Plant Variety Protection Office with WordPerfect 9.0. Replaces STD-470 (07-01) designed by the Plant Variety Protection Office with WordPerfect 9.0. Replaces STD-470 (07-01) designed by the Plant Variety Protection Office with WordPerfect 9.0. Replaces STD-470 (07-01) designed by the Plant Variety Protection Office with WordPerfect 9.0. Replaces STD-470 (07-01) designed by the Plant Variety Protection Office with WordPerfect 9.0. Replaces STD-470 (07-01) designed by the Plant Variety Protection Office with WordPerfect 9.0. Replaces STD-470 (07-01) designed by the Plant Variety Protection Office with WordPerfect 9.0. Replaces STD-470 (07-01) designed by the Plant Variety Protection Office with WordPerfect 9.0. Replaces STD-470 (07-01) designed by the Plant Variety Protection Office with WordPerfect 9.0. Replaces STD-470 (07-01) designed by the Plant Variety Protection Office With WordPerfect 9.0. Replaces STD-470 (07-01) designed by the Plant Variety Protection Office With WordPerfect 9.0. Replaces STD-470 (07-01) designed by the Plant Variety Protection Office With WordPerfect 9.0. Replaces STD-470 (07-01) designed by the Plant Variety Protection Office With WordPerfect 9.0. Replaces STD-470 (07-01) designed by the Plant Variety Protection Office With WordPerfect 9.0. Replaces STD-470 (07-01) designed by the Plant Variety Protection Office With WordPerfect 9.0. Replaces STD-470 (07-01) designed by the Plant Variety Protection Office With WordPerfect 9.0. Replaces STD-470 (07-01) designed by the Plant Variety Protection Office With Plant Variety Protection Pro | CAPACITY OR TITLE | | DATE |

INSTRUCTIONS

GENERAL: To be effectively filed with the Plant Variety Protection Office (PVPO), ALL of the following items must be received in the PVPO: (1) Completed application form signed by the owner; (2) completed exhibits A, B, C, E; (3) for a seed reproduced variety at least 2,500 viable untreated seeds, for a hybrid variety at least 2,500 untreated seeds of each line necessary to reproduce the variety, or for tuber reproduced varieties verification that a viable (in the sense that it will reproduce an entire plant) tissue culture will be deposited and maintained in an approved public repository; (4) check drawn on a U.S. bank for \$2,705 (\$320) filing fee and \$2,385 examination fee), payable to "Treasurer of the United States" (See Section 97.6 of the Regulations and Rules of Practice.) Partial applications will be held in the PVPO for not more than 90 days, then returned to the applicant as unfiled. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 401, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. Retain one copy for your files. All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initiated and dated. DO NOT use masking materials to make corrections. If a certificate is allowed, you will be requested to send a check payable to "Treasurer of the United States" in the amount of \$320 for issuance of the certificate. Certificates will be issued to owner, not licensee or agent.

> **Plant Variety Protection Office** Telephone: (301) 504-5518 FAX: (301) 504-5291

Homepage: http://www.ams.usda.gov/science/pvpo/pvp.htm

ITEM

18a Give:

- (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method;
- (2) the details of subsequent stages of selection and multiplication;

(3) evidence of uniformity and stability; and

- (4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified
- 18b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:

identify these varieties and state all differences objectively;

(2) attach statistical data for characters expressed numerically and demonstrate that these are clear differences; and

- (3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness
- 18c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.
- 18d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease
- 18e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.
- 19. If "Yes" is specified (seed of this variety be sold by variety name only, as a class of certified seed), the applicant MAY NOT reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. (See Regulations and Rules of Practice, Section 97.103).
- 22. See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.
- 23. See Section 55 of the Act for instructions on claiming the benefit of an earlier filing date.
- 21. CONTINUED FROM FRONT (Please provide a statement as to the limitation and sequence of generations that may be certified.)

22. CONTINUED FROM FRONT (Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety (including any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.)

USA October 10, 2001

23. CONTINUED FROM FRONT (Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the variety is protected by intellectual property right (Plant Breeder's Right or Patent).)

72: OIA ES 3UA SO.

NOTES: It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or owner's representative during the life of the application/certificate. There is no charge for filing a change of address. The fee for filing a change of ownership or assignment or any modification of owner's name is specified in Section 37,175 of the container. (See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of the Regulations and Bules of Practice 1. 97.175(h) of the Regulations and Rules of Practice.)

To avoid conflict with other variety names in use, the applicant must check the appropriate recognized authority. For example, for agricultural and vegetable crops, contact: Seed Branch, AMS, USDA, Room 213, Building 306, Beltsville Agricultural Research Center-East, Beltsville, MD 20705. Telephone: (301) 504-8089. http://www.ams.usda.gov/isg/seed.htm

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 3.0 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, sexual orientation, or marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

To fle a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call 202-720-5964 (voice and TDDL USDA is an equal opportunity provider and employer.

S&T-470 (07-01) designed by the Plant Variety Protection Office with WordPerfect 9.0. Replaces STD-470 (04-01) which is obsolete.

Exhibit A

ORIGIN AND BREEDING HISTORY OF LONGFELLOW II (CIS-FRC 2)

CHEWINGS FESCUE

Longfellow II (CIS-FRC 2) Chewings fescue (Festuca rubra L. subsp. commutata Gaud.) is an advanced generation synthetic cultivar selected from the maternal progenies of 23 clones. Longfellow II was developed for improved seed yield and turf performance, dark bright green color, and freedom from disease. Much of the parental germplasm used to breed Longfellow II traces to plants related to the variety Longfellow.

The germplasm used in the development of Longfellow II Chewings fescue was developed using a population improvement program initiated at the New Jersey Agricultural Experiment Station in 1962. The most promising plants used in this program were selected from old lawn-type turfs on the grounds of Fort McHenry, Baltimore, MD, Johnson Park in Piscataway, NJ, the College Avenue Campus of Rutgers University, New Brunswick, NJ, the Bridgehampton Golf Course, Bridgehampton, NY, Longfellow Park in Cambridge, MA, Westview Cemetery in Atlanta, GA, old parks in Philadelphia, PA, Tennant Cemetery, in Tennant, NJ, and a lawn located at 4 Delaware Drive in East Brunswick, NJ.

An intensive germplasm collection effort was initiated by Rutgers University in 1962 to select and utilize the best plants surviving in old turfs. Many weeks were spent examining old turfs for attractive, well-adapted plants of Chewings fescue and other useful turfgrasses. Promising plants selected from old turfs were subjected to clonal and progeny evaluation in closely mowed turf trials and spaced-plant nurseries. Of over a thousand Chewings fescue plants collected, only a few dozen were saved for further breeding work. These elite selections were crossed with other promising selections from the germplasm collection program or from current cycles of the breeding program. Progenies from these crosses were included in population improvement programs, which included screening in a greenhouse for improved disease resistance, in spaced-plant nurseries for increased seed yield and uniformity, and in closely mowed turf trials for improved turf performance and increased stress tolerance. Extensive screening for improved disease resistance was conducted under greenhouse conditions as well as in spaced-plant nurseries and closely mowed turf trials at North Brunswick, and Adelphia, NJ.

Single-plot progenies of 535 clones selected from the Rutgers turfgrass breeding program were seeded in individual turf plots in Adelphia, NJ in the late summer of 1994.. Following two years of evaluation for disease resistance, heat and drought stress tolerance and improved turf quality, 23 single-plot progenies were selected from this trial. Selection was based on turf performance prior to selection and appearance of the plots at the time of selection. After intense interplant competition eliminated most of the weak plants during those two years of evaluation, promising plants were selected from those 23

single-plot progeny turf plots and sent to Cebeco International Seeds Inc. in the late summer of 1996 where they were planted in isolated nursery. This nursery consisted of the plants listed below. These 445 plants were planted in the nursery in a completely randomized manner.

| A94 | No. of | A94 | No. of |
|---------------|---------------|---------------|---------------|
| <u>Family</u> | <u>Plants</u> | <u>Family</u> | <u>Plants</u> |
| 105 | 17 | 343 | 23 |
| 107 | 16 | 353 | 14 |
| 136 | 19 | 398 | 17 |
| 154 | 21 | 409 | 19 |
| 156 | 20 | 428 | 18 |
| 161 | 28 | 433 | 20 |
| 188 | 25 | 434 | 16 |
| 199 | 20 | 436 | 22 |
| 263 | 14 | 439 | 18 |
| 284 | 18 | 441 | 24 |
| 302 | 20 | 442 | 22 |
| 325 | 14 | | |
| | | | |

Prior to anthesis in 1997 approximately 20% of the plants in the nursery that had few reproductive tillers, and/or light green foliage were removed from the nursery. The plants that remained in the nursery were allowed to interpollinate. Seed harvested from these plants was bulk harvested in 1997 and 1998. This seed constitutes the stock seed for the variety Longfellow II (experimental CIS-FRC 2). A portion of this seed is maintained by Cobeco International Seeds and may be used to plant new breeder seed fields when necessary.

The variety Longfellow II has appeared uniform and stable during the multiplication from breeder to foundation to certified generation. Longfellow II has a small percentage (<0.25%) of plants that are somewhat taller and coarser than the rest of the population. The percentage of these plants appears to be stable when seed is multiplied from breeder through certified generations.

TO STATE OF THE ST

Exhibit B

Statement of Distinctness

Longfellow II chewings fescue (Festuca rubra comutata) is late maturity variety developed for use in turf.

Longfellow Π is most similar to the variety Jamestown. Differences between Longfellow Π and Jamestown include, but are not necessarily limited to the following:

1. Longfellow II has a lower 1000 seed weight when grown in western Oregon. (0.99 g vs. 1.21 g).

OF WHATER

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
LIVESTOCK, MEAT, GRAIN & SEED DIVISION
PLANT VARIETY PROTECTION OFFICE
BELTSVILLE, MARYLAND 20705

EXHIBIT C (Fine Leaved Fescues)

OBJECTIVE DESCRIPTION OF VARIETY FINE LEAVED FESCUES

| | DLF | | (Festuca spp.) | |
|-----|----------------------------------|--|---|---|
| Jan | NAME OF | APPLICANT(S) and Rutgers. The | TEMPORARY DESIGNATION | VARIETY NAME. |
| 4/8 | A DOBESS | International Seeds and Rutgers, The (Street and No. or R.F.D. No., City, State and Zip Code | CIS-FRC 2/ISI-FRC 2 | Longfellow II |
| ••• | PO Box | · · · · · · · · · · · · · · · · · · · | D 401-01/01/0000 | FOR OFFICIAL USE ONLY PVPO NUMBER |
| | Halsey | OR 97348 | | 200200236 |
| | or 0 9 be for SPAC 1-5; 5= | propriate number that describes the varietal character of). Characteristics described including numerical measure ED PLANTS. Royal Horticultural Society or any recognivery dark green cations with 20 plants per variety | ements, should represent those that sized color fan may be used to dete Describe location of test area, cond | are typical for the variety. Measured data should mine plant colors; designate system used: |
| | 1. SPECIES | : (With comparison varieties for use below - use varieties | within species of application variet | γ) |
| | 1 | | 11 = Cascade 12.= Highlight | ht 13 = Jamestown |
| | | B 42 1 32 14 14 14 14 14 14 14 14 14 14 14 14 14 | 14 = Banner 15 = Barfall 21 = Dawson 22 = Starlig | |
| | | 3 = F. rubra ssp. rubra (Spreading Red) | 24 = Pennlawn 31 = Boreal 32 = Ruby | 33 ≈ Fortress |
| | | 4 41 1 454 1 | 34 = Ensylva 11 = Covar | |
| | | 5 = F. longifolia (Hard) | 51 = Durar 52 = Biljart | (C-26) 53 = Scaldis |
| | | 6 = F. tenuifolia (Fine-Leaved Sheep) | 61 = Panda 62 = Barok | |
| | | 7 = Other (Specify) F. | | |
| | 2. CYTOLO | OGY: | | |
| | 42 | the state of the s | = diploid 2 = tetraplo l = octoploid | d 3 = hexaploid |
| | 3. ADAPTA | Northeast 2 Southeast 2 North C | Central 2 Pacific N.W. | Other (Specify) |
| | 4. MATUR | TY: Date First Headed (panicle emergence) Location(s) | of Trail(s) <u>Harrisburg, Or</u> | egon |
| | 5 | | y (Highlight) e (Jamestown, Agram) | 3 = Medium Early (Boreal, Dawson) 6 = Very Late |
| • | | Date Headed May 3 | | |
| | | Days earlier than . N/A | | |
| | | Maturity same as | Comparison Variety | |
| | 0 3 | Days later than Shadow | | |
| | 5. PLANT H | IEIGHT: (At maturity; to top of panicle; Average of 10 | | |
| | 7 7 6 | mm height | (1941년 ^{왕조} 원(1943년 - 1945년 - 194 - 1945년 - 1945년 | |
| | 0 7 7 | mm shorter than Longfellow | | |
| | | Height same as . Koket | Comparison Variety | |
| | | mm taller than . N/A | | • |
| | 6. GROWTH | I HABIT: (Mature) | | |
| | 2 | 1 = Erect (Ruby) 2 = Semi-erect (Hi | ghlight) 3 = Prostrate (S | ilvana) |
| | 7. RHIZOM | ES: | | |
| | | mm Length mm Width | mm Internode length | , |
| | 1 | 1 = Absent (Highlight) 2 = Wea 4 = Very Strongly Creeping (Fortress) | kly Creeping (Dawson) | 3 = Strongly Creeping (Boreal) |

| 8. LEAF | BLADE: | | | | | | | |
|-------------|------------------------|--|--------------------------------|------------------------|----------------------------------|---|---|---------------------------------------|
| 4 | Color: | 1 = Light Green (Star 4 = Dark Green (Jame 7 = Other (Specify) | estown Manoir) | 2 = Medio 5 = Blueg | um Light Green Ireen (Saphir) | (Highlight) | 3 = Medium Dark Gre 6 = Graygreen {Scaldi | een (Ruby, Agra s) |
| <u>[1</u> | Glaucosit | y (Sowing Year): | | ent (Koket) | 2 = 1 | Propert () (-) | | ······ |
| 2 | i | nin; 1 = Absent | 2 = Prese | | [| Present (Vendome) | | |
| 1 | I | 1 = Smooth | 2 = Semi-rough | | 3 ≈ Rough | s (Basal) 1 = Absent | 2 = Present | |
| 2 | Margin fo | lding (closure): | 1 = Rolled inwa | | - | 2 = Flat (on | en-Jamestown, Engina) | |
| 2 | Width clas | | | | J | 2 118(10) | en-Jamestown, Engina) | |
| | | 1 = Very Fine (Agram 3 = Medium Fine (For | , Frida) tress, Ruby, Scalo | fis) | 2 = Fine (Ja 4 = Medium | amestown, Highlight, Coarse (Engina) | Banner, Dawson) | • |
| 1 4 4 | | h (flag leaf) | | | - medium | Coarse (Engina) | | |
| | mm Shorte | er than N/A . | [| 1 | | | | |
| | Blade lenge | th same as Longfel | low | Compa | rison Variety | | | |
| 5 3 | | rthan .Koket. | <u></u> | 1 | | | | - |
| 1.7 6 | mm Width | (flag leaf) | h | 1 | | | | |
| | mm Narrov | ver than Ņ/Ā | | | | | | |
| | Blade width | n same as | . 13 | Compar | ison Variety | • | | |
| | mm Wider | than N/A | | | · | | | |
| 9. LEAF SH | IEATH: | | | <u> </u> | | | | |
| 2 | Anthocyani | n (seedling): | 1 = Absent (High | (iaht) | 2 = Precent (| Jamestown, Fortress, | | |
| 1 | Auricle Hair | _ | 1 = Absent | | 2 = Present | Jamestown, Futtress, | Marga) | |
| 2 | Margins: | 1 = Open (Hig | | 2 = Clos | ed (Jamestown) |) | | |
| 10. PANICLE | (Mature plant |): | | | | | | |
| 2 | Shape: | 1 = Narrow-tapering | 2 - 0 | | | | | |
| 2 | Type: | 1 = Open | 2 = Ova | | 3 = Oblong | 4 = Other | (Specify) | |
| | Orientation: | | 2 = Intermedia | | 3 = Compact | | | |
| 2 | Branch Pube | | 2 = Nod | | | | | |
| | | | brous | 2 = Pube | ^{scent} (pubes | cence is rar | e) [.] | |
| [3] | Anther Color | 1 = Yellowish | Green | 2 = Gree | า | 3 = Bluish Green | 4 = Purplish | |
| [2] | Glume Color (At 50% | 5 = Reddish | | 6 = Other | (Specify) | | 4 - Forpisi | |
| 120 | flowering): | | | | | | | |
| 3 3 | mm Length | | | ŀ | | • | | |
| | Panicle length | than Longfellow | . L_L_ | , <u>;</u> | | | | |
| | mm Longer ti | nan . | . [1 [3] | Comparis | on Variety | | | |
| | Conger (| n'A · · | · [] | | | | | |
| 11. PALEA: | | | (49) | | | | | · · · · · · · · · · · · · · · · · · · |
| 3 | Hairs (On kee | ls or margins): | 1 = Absent (Bar | ner) | : | Agram, Scaldis, Olds | in the second | |

| 12. LEMMA (M | ature); |
|------------------|---|
| 3 | Hairs: 1 = Absent (Jamestown) 2 = Several 3 = Many (Highlight) |
| 6.6 | mm Lemma Length |
| 0.7 | mm Shorter than Longfellow |
| i | Lemma length same as |
| | mm Longer than N/A |
| 1.08 | nm Lemma Width |
| | nm Narrower than |
| t | emma width same as |
| | nm Wider than |
| 2 4 | Awns: 1 = Absent 2 = Present |
| 17 " | nm Awn Length |
| | nm Shorter than N/A |
| A | wn length same as Banner. Comparison Variety |
| | nm Longer than N/A |
| 13. SEED (With I | emma & palea): |
| 2 | Size Class (g/1000 seed): 1 = < .9g (Biljart, Dawson) 2 = .9 - < 1.1g (Jamestown, Highlight) 3 = 1.1 - 1.3g (Fortress, Novorubra) 4 = > 1.3g (Boreal, Golfrood) |
| 0990 | mg per 1000 seed |
| 220 | mg per 1000 seed less than |
| | Seed Weight same as N/A |
| | mg per 1000 more than N/A |
| 14. DISEASE, INS | ECT, AND NEMATODE REACTION (0 = Not Tested, 1 = Susceptible, 2 = Resistant): |
| U | |
| 0 | Leaf spot D. siccans Leaf rust P. poae-nemoralis |
| 0 | Net blotch D. dictyoides O P. crandallii |
| 2 | Leaf spot Bipolaris sorokiniana O Pythium Blight Pythium ultimum |
| 2 | Brown patch Rhizoctonia solani 2 Red thread Corticium fusciforme |
| 0 | Powdery mildew Erysiphe graminis Dollar spot Sclerotinia homoeocarpa |
| 0 | Stripe smut Ustilago striiformis |
| 2 | F. Patch, Pink snow-mold Fusarium nivale |
| D | Fusarium blight F. tricinctum, F. roseum |
| 2 | Gray snow mold Typhula iotana Other |
| 0 | Stem rust Puccinia graminis |

- 15. GIVE VARIETY OR VARIETIES THAT MOST CLOSELY RESEMBLE THE APPLICATION VARIETY. For the following characteristics indicate Degree of Resemblance by placing the column marked, D.R., one of the following numbers:
 - 1 = Application variety is less than comparison variety.

2 = Same As

3 = More than, better, greater, darker, more disease resistant, etc.

| | | | | | |
|-----------------|-----------|------|---------------|-------------|------|
| CHARACTER | VARIETY | D.R. | CHARACTER | VARIETY | Đ.R. |
| Rhizome Length | | | Growth Habit | Jamestown | 2 |
| Leaf Width | Jamestown | 1 | Leaf Color | Jamestown | 3 |
| Panicle Color | | | Panicle Shape | Jamestown | 2 |
| Winter Color | | | Cold Injury | | , |
| Shade Tolerance | | | Heat | | |
| Drought | | | Disease * | | |
| | | | | · | |

^{*} Specify each disease evaluated.

Describe all characteristics that cannot be adequately described in the form above in Exhibit D. Comparative varieties should be used as may be appropriate, such as for disease. Append all comparative trial and evaluation data, including measured characters, environmental, and disease tests.

nueuv-velocies Ekisemen

^{16.} ADDITIONAL DESCRIPTION: (Use additional sheets as required)

EXHIBIT D

Table 1. Heading dates of chewings fescues grown near Harrisburg, Oregon

Jan Jan D.

| | - | leading Da | te |
|---------------|---------------|------------|----------|
| Variety | 2000 | 2001 | Average |
| Longfellow | April 22 | April 25 | April 24 |
| Koket | May 1 | April 28 | April 30 |
| Shadow | April 29 | April 30 | April 30 |
| Banner | April 29 | May 2 | May 1 |
| Longfellow II | May 3 | May 2 | May 3 |
| Jamestown | May 2 | May 6 | May 4 |

10.

Table 2. Morphological traits of Chewings fescue cultivars grown near Harrisburg, Oregon.

| | Pla | Plant Height (cm) | t (cm) | Panic | de Leng | | 1st Intel | rnode Le | ingth (cm) | 2nd Inte | rnode L | ength (cm | Flag L | eaf Len | yth (cm) |
|---------------|-------|-------------------|---------|-------|---------|--------------|-----------|----------|------------|----------|---------|-------------------------------------|--------|---------|------------------|
| Variety | 2000 | 2001 | Average | 2000 | 2001 | 2001 Average | 2000 | 2001 | Average | 2000 | 2001 | Average | 2000 | 2001 | Average |
| Longfellow | 82.74 | 87.87 | 85.31 | | 14.40 | | 38.43 | 46.30 | 42.36 | 16.56 | 16.32 | 38.43 46.30 42.36 16.56 16.32 16.44 | 9.78 | 12.77 | 9.78 12.77 11.28 |
| Banner | 77.66 | 86.47 | | 13.04 | 13.73 | | 36.25 | 44.05 | 40.15 | 17.51 | 15.30 | 16.41 | 7.60 | 11.66 | 9.63 |
| Shadow | 74.30 | 84.52 | 79.41 | 13.33 | 14.02 | 13.67 | 32.61 | 40.88 | 36.75 | 16.34 | 13.65 | 15.00 | 9.55 | 11.19 | 10.37 |
| Jamestown | 71.62 | 85.18 | | 13.73 | 14.36 | | 28.90 | 41.59 | 35.25 | 19.85 | 16.68 | 18.27 | 7.44 | 11.62 | 9.53 |
| Longfellow II | 71.68 | 83.60 | | 11.68 | 12.30 | | 31.49 | 41.55 | 36.52 | 17.89 | 15.52 | 16.71 | 15.84 | 12.85 | 14.35 |
| Koket | 76.79 | 76.79 77.71 | | 14.63 | 12.68 | 13.66 | 36.32 | - | 40.69 | 17.23 | 11.45 | i | 7.79 | 10.22 | 9.01 |
| rsD | 6.73 | 10.21 | | 1.65 | 1.81 | | 8.15 | 8.31 | | 3.50 | 3.31 | | 5.51 | 2.32 | |
| | | | | | | | | | | | | | | | |

Table3. Additional Morphological traits of chewings fescue varieties grown near Harrisburg, Oregon

| | Flag l | eaf Wi | eaf Width (mm) | Tiller | Leaf Ler | ngth (cm) | Tiller | Leaf Wi | dth (mm) | Veg | eaf Len | gth (cm) |
|---------------|--------|--------|----------------|--------|----------|----------------|--------|---------|----------------|-------|---------|-------------|
| Variety | | 2001 | Average | 2000 | 2001 | Average | 2000 | 2001 | Average | 2000 | 2001 | Average |
| Longfellow | 2.17 | 2.11 | 2.14 | 9.22 | 11.15 | 10.19 | 2.25 | 1.86 | 2.05 | 33.00 | 29.67 | 31.34 |
| Banner | | 1.64 | 2.02 | 8.39 | 11.18 | 9.78 | 2.17 | 1.59 | 1.88 | 24.93 | 24.42 | 24.68 |
| Shadow | | 1.66 | 1.99 | 8.94 | 11.68 | 10.31 | 2.21 | 1.81 | 2.01 | 28 42 | 22.60 | 25.51 |
| Jamestown | | 1.63 | 1.88 | 7.70 | 10.96 | 9.33 | 2.03 | 1.69 | 1.86 | 25.31 | 25.75 | 25.53 |
| Longfellow II | | 1.56 | 1.76 | 8.15 | 10.69 | 9.42 | 1.67 | 1.57 | 1.62 | 24.60 | 23.35 | 23.97 |
| Koket | | 1.87 | 1.90 | 8.11 | 9.20 | 8.11 9.20 8.65 | 2.13 | 1.45 | 2.13 1.45 1.79 | 23.23 | 18.23 | 18.23 20.73 |
| rsD | 0.69 | 0.51 | | 2.04 | 2.01 | | 0.64 | 0.53 | | 5.65 | 5.86 | |

Hickory)

12

Table 4. Seed characteristics of chewings fescue varieties grown near Harrisburg, Oregon

| | 10 Se | 10 Seed Length (mm) | (mm) t | 10 S¢ | 10 Seed Width | (mm) | Awn | Length | (mm) | 1000 | 00 seed w | t (g) |
|---------------|-------|---------------------|---------|--------|---------------|---------|------|--------|---------|------|-----------|---------|
| Variety | 2000 | 2001 | Average | 2000 | 2001 | Average | 2000 | 2001 | Average | 2000 | 2001 | Average |
| Shadow | 66.33 | 71.00 | 68.67 | 11.00 | 11.33 | 11.17 | 2.64 | 1.84 | 2.24 | 1.53 | 0.98 | 1.25 |
| Koket | 67.67 | 69.00 | 68.34 | 12.00 | 12.00 | 12.00 | 2.54 | 1.40 | 1.97 | 1.66 | 06.0 | 1.28 |
| Longfellow | 65.33 | 65.67 | 65.50 | 11.00 | 10.67 | 10.83 | 2.45 | 1.79 | 2.12 | 1.48 | 96.0 | 1.22 |
| Banner | 60.33 | 64.33 | 62.33 | 11.00 | 11.33 | 11.17 | 2.13 | 1.69 | 1.91 | 1.48 | 0.97 | 1.23 |
| Jamestown | 58.33 | 62.00 | 60.17 | 11.00 | 10.33 | 10.67 | 2.32 | 1.68 | 2.00 | 1.43 | 0.99 | 1.21 |
| Longfellow II | 27.67 | 59.33 | 58.50 | 11.33 | 10.33 | 10.83 | 2.18 | 1.27 | 1.73 | 1.24 | 0.74 | 0.99 |
| LSD @ 0.05 | 5.82 | 5.59 | | S S | S S | | SS | 0.43 | | 0.18 | 0.20 | |
| | | | ٠ | | | | | | | | | |

| | CONTRACT TO TOO | | FORM APPROVED - OMB No. 0581 |
|---|--|--|---|
| U.S. DEPARTMENT OF A AGRICULTURAL MARKE | | Application is required in order to di certificate is to be issued (7 U.S.C. | etermine if a plant variety protection 2421). The information is held |
| EXHIBIT | | confidential until the certificate is is | Sued (7 U.S.C. 2426). |
| STATEMENT OF THE BASI | S OF OWNERSHIP | b-care | 가 불통하는 것이 있는데 그 이 그를 보고 있다. 그는 그들은 살았다면 하는데 |
| 1. NAME OF APPLICANT(S) DLF | and Rutgers, The | 2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER | 3. VARIETY NAME |
| Gebece International Se | eds Inc. State University of New Terse | | Longfellow II |
| 4. ADDRESS (Simed and No., CV R.F.D. No., CH | hi. State, and ZIF and Country! OT: 8/18/2005 | 5. TELEPHONE (Include area coole) | 6. FAX (Include area code) |
| PO Box 229/175 West 'H' | | 541-369-2251 | 541-369-2640-(BT-8/18/20 |
| Halsey, OR 97348 | | 7. PVPO NUMBER | |
| USA | | 20020 | 0236 |
| Does the applicant own all rights to to | ne variety? Mark an "X" in | the appropriate block. If no, please ex | |
| 2. Doos the approach own as rights to t | ic valiety: Mark att X (t) | i die appropriate block. It no, piease ex | plain X YES |
| | | | |
| | | | |
| | | | |
|). is the applicant (individual or compan | y) a U.S. National or a U.S | S. based company? If no, give name of | country X YES |
| | | • | |
| 0. Is the applicant the original owner? | y YES N | NO If no, please answer one of the f | ollowing: |
| | | | - |
| a. If the original rights to variety wer | re owned by individual(s), | is (are) the original owner(s) a U.S. Natio | onal(s)? |
| | T YES T | NO If no, give name of country | |
| | | in the give hame of country | |
| b If the original rights to variety we | re owned by a company(i | es), is (are) the original owner(s) a U.S. t | sacad company? |
| of mane original rights to railed, no | | | Jacob Company: |
| | YES N | NO If no, give name of country | |
| | | | |
| Additional explanation on ownership | (If needed, use the reven | se for extra space): | |
| | ₩ = | • • | |
| Longiellow II was deve | loped by Cebeco Jersev Agricultu | International Seeds, Inc. Fal Experiment Station. | using germplasm |
| | , | | |
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| LEASE NOTE: | | | |
| | | · · · · · · · · · · · · · · · · · · · | |
| | ded to the owners (not lice | ensees) who meet the following criteria: | |
| . If the rights to the variety are owned b | y the original breeder, tha | ensees) who meet the following criteria: it person must be a U.S. national, nations s of the U.S. for the same genus and spe | al of a UPOV member country, or |
| lant variety protection can only be affor if the rights to the variety are owned be national of a country which affords sin if the rights to the variety are owned b | by the original breeder, tha nilar protection to nationals by the company which emp | at person must be a U.S. national, national | ecies. any must be U.S. based, owned by |
| Plant variety protection can only be affor if the rights to the variety are owned by national of a country which affords simulationals of a UPOV member country, genus and species. | by the original breeder, than illar protection to nationals by the company which empty, or owned by nationals of | at person must be a U.S. national, nationals of the U.S. for the same genus and special or the original breeder(s), the compa | ecies. any must be U.S. based, owned by n to nationals of the U.S. for the same |

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